



October 1987

SEPTEMBER

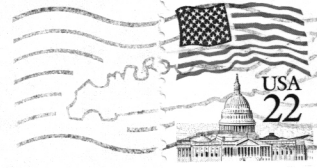
Price \$1.50

3 issues edited by Joe Newman, 3 issues late. But what is late? Yes, the newsletter should be timely to remind people of meetings, but we should all know that meetings are the second Sunday of each month. For those that truly forget, I am sorry for any inconvenience... otherwise **ENJOY!**

Editor:

Joe Newman
JOE NEWMAN

LIST
P.O. BOX 438
CENTERPORT, N.Y. 11721-0438



TO:

Don
3310 Clover Dr S
Cedar Rapids IA 52404
Jan-8
Lambert
52404

FIRST CLASS MAIL

DATED MEETING NOTICE- PLEASE DON'T DELAY!

Meeting Minutes
Sept. 13, 1987

The monthly meeting was held at the home of Harvey Rait in Valley Stream. Correspondence received was read and acknowledged.

A vote was passed to buy several of Pete Fisher's excellent Telecommunications Handbook, for resale at out meetings and for our standing library.

Martin Helfegott reported on the PC show he attended last month at the Javitt's Center in NYC. He also advised us that Read Adm. Ret. Grace Hopper will lecture on Oct. 9 at Hofstra Univ., L.I. For anyone interested in the history of computers and developments, she is without a doubt the expert on the subjects, and is an extremely interesting and entertaining spokeswoman.

Stoney McMurray gave a talk on QL SuperBASIC functions that reduce confusing loops and GOTOs. DEFine PROCedure was shown to be an invaluable tool in programming. Kudos to Stoney for a well presented subject.

Two new members attended and we welcome them into our fold. Most members in attendance purchased the new LIST tape #8 which is now available. For those of you who cannot attend meetings the tape is available by mail. Send \$3.00 to Harvey Rait, 5 Peri Lane, Valley Stream, NY 11581 and he will mail it to you. Program contributions are always appreciated in order to start the next tape.

Our editor, Joe Newman of Variety Sales, will attempt to obtain a discount price on microdrive cartridges for LIST members. More news on this at the next meeting, which will be held on Oct. 11, again at the home of Harvey Rait (address above), tel: 516-791-6247

Editor's Editorial

'Silly typefonts, lateness, free ads'- are these problems for our newsletter? I will admit that lateness is what can ruin a newsletter or other periodical.

When people pay for a monthly magazine, they expect to receive it each month, or they cancel their subscriptions. I know the first two issues of LISTing which I have edited have come out late. I also intend to do something about it...get the newsletter out on time. Of course you must realize that I cannot guarantee that the newsletter will always arrive at your house on the same date. As the previous newsletter producers know, making the newsletter is not as easy as one may at first think. Face it- if this was an easy job with no demands on the editors time for other work, LIST would have no trouble finding and retaining an editor!

Now for silly typefonts- this is explained below in the letters section. In brief- I had to use the typefonts in the last issue due to a now solved problem with my Quill Columnizer. No more unreadable 'silly' typefonts!

And finally- the 'free ads'. Some of you may have noticed that fellow LIST member John Pazmino had a two page listing of used products for sale in the last issue. When I agreed to print this listing, I didn't even think of it as being a 'free two page ad'. John is not a TS dealer- he is a fellow user and supporter of TS equipment. He presented a list of fine PREVIOUSLY OWNED TS products which he was selling off cheap. These are all one up items which John bought for himself in the past. After seeing the items (and prices) John was offering I felt I would be doing fellow LIST members a great service to print John's list. I personally know for fact that some of you got great deals on some items...should I have NOT printed the list? If not, you either would not have the items or would have paid more. So these 'free' ads have actually made YOU money! And as editor of LISTing I am willing to print any product offers LISTing members wish to have printed. This is a service to YOU...please take advantage of it! Instead of letting that old Memotech collect spider's

eggs, SELL IT through LISTing to someone who can use it!

And finally- the Variety Sales ads. These are my ads. In case you don't know, I run Variety Sales. My motto is 'I support what I sell'. I think I am justified in putting an ad for myself in LISTing after putting in the time and energy to put together this newletter and keep it coming. And if you have been reading the Newsnotes, you will see I do not bias against other dealers- if they wish to say something in LISTing, I'll print it. Quantum Computing is in the same state (NJ) as me, and I print (good) news about them!

LETTERS

Dear Editor:

I just received the August '87 issue of our Newsletter. Page 2 (Newsletter Notes) has a few remarks by you on John P.'s (is that Pazmino? I think I recognize his distinctive style!) [yes- ed.] article on BASICCODE. Some of your remarks require corrections.

1. There is a chance that a letter to Holland will not reach its destiny if you don't include a ZIPCODE. The Zipcode system in Holland is much more elaborate than here in the USA. If you have another zipcode for the town of Hilversum, chances are that you can NOT use that one, because zipcodes cover only one street block in a city and then only one side of that block! [Elaborate? Sounds like an understatement!- ed.] The complete address for the originators of BASICCODE is:

HOBBYCODE
PO Box 1200
1200 BE Hilversum
The Netherlands

Leave out the word NOS and write the address EXACTLY as shown, in 4 lines. So many Americans have trouble with foreign addresses [what do you expect- we're all ignorant- ed.]!

2. Then there is the matter of the rate of exchange. Last time I was in

Holland (May of this year), the US dollar could get only 1.997 guilders! It still is not more than 2 guilders for a dollar.

3. I don't know where you got the notion that you cannot pay with your personal check. Anyone in Holland with a Dutch bank account can deposit a personal check sent by an American. I have sent dozens and dozens of checks in the past several years, to my mother and to friends of mine. THERE IS NO PROBLEM, as long as they have a bank account. It is CASHING a personal check that is not possible. The same is true for Denmark. England is an entirely different story; they have other monetary rules.

4. The letters NV just mean "Ltd" or "Inc", like GmbH in the German language, SA in Spanish...

As far as the BASICCODE instruction book goes, I am quite willing to translate from Dutch into English, but I cannot do this for naught. My rate is \$25 per typed out page, single space, 64 characters per line, 60 lines per page.

Finally Joe, I think that you are doing a fine job as our new editor and hope that you will be able to continue even after the summer months!

But I have one gripe and it is a serious one! Could you possibly stop using those silly typefonts, used in page 2 thru 4 of the August issue??? I find them very difficult to read.

Respectfully,

Cedric R. Bastiaans

*Cedric:

Thank you for the nice comments about my editing job! And last thing first, I'm not using those 'silly' typefonts anymore! I had a problem with my Quill Columnizer last issue, and that is why I had to resort to that other typestyle. I understand that it was hard to read. AS the person who types in all this stuff, by the time it was

set up in the silly font I knew what everything said, so it wasn't hard for me to read! I'm sorry for any inconvenience this may have caused.

Now, as for my 'notions'. The information about BASICODE was provided to me by John P. The notions were his, not mine. I should have put quotes around his comments! Thanks for the corrections. As for our (Americans') problems with foreign addresses and banking processes- my only excuse is how are we supposed to know!

Not wanting to sound down on Cedric, I am thankful that he took the time to explain the above procedures. I asked for comments, and I got them. Remember, if you have any kinds of suggestions or comments, send them in! I do care. And if I don't, I'll usually explain why! Thanks again Cedric, especially for the program which is elsewhere in this issue. It came just in time. I do appreciate the fact that you submitted it camera-ready...yes, it does save me much time and trouble.

-Joe Newman, Editor

News Notes

Quantum Computing is alive and well... that's what has been reported. Apparently Quantum had some trouble with a rather unambitious employee, who has since left the company.

LIST member John Bell has a QL system for sale for \$125. This includes several items besides the QL. Unfortunately I don't have John's address or phone.

Speaking of QL systems for sale, the list price on the QL has dropped dramatically! What is dramatic? Variety Sales has the QL for \$129 to LIST members! For that price you get the QL Computer, power supply, manual, wordprocessor, database, spreadsheet, business graphics, and all cables etc. This is the complete outfit! At \$499 the QL was a great buy...now it is a GIVE AWAY! If you are thinking of getting a QL eventually, NOW is the

time to buy, as they may be all sold by January.

The editor of LISTing, Joe Newman, is interested in starting a QL FREE public domain library. He would collect public domain software then copy it for whoever sent media. There would be no membership fees, royalties, or any other kinds of service charges. All you would have to do is send a disk/mdv and return postage. Let LISTing or Joe Newman know what you think (address elsewhere).

Heard it through the grape seed- not quite a rumor yet; less than a rumor! Amstrad may produce a new version of the QL, with a built in disk drive or two. Remember, these kind of rumors have been circulating for a while- don't take them as much.

A person has offered me QUAD DENSITY full-height disk drives for only \$50 each. These are brand new TANDON 96 tpi drives (80 tracks/side), capable

of storing 720K per disk. The drives come in original factory styrofoam and even include technical/user's manuals (a rarity). Due to the nature of the contact, if you are interested in these drives I would have to buy them for you to get the \$50 price. Please call or write me at:
Variety Sales, Joe Newman
325 W. Jersey St., #2D
Elizabeth, NJ 07202
201-527-0535 weekdays 9am to 7pm.
There is a \$5 shipping charge on the drives.

FLASH*** These two items JUST CAME IN: Both OMNI-NET BBS's are replaced by a new BBS, MICRO LINK. This BBS is run by our old faithful BBS'er, Al Hartman (who used to be SYSOP of the Zebra BBS). The number is 718-648-3502. I haven't had time to check out the board yet, so I can't report on the board's developments. I believe the board is up 24 hours, at 300 or 1200 baud.

The second flash is that the San Francisco Bay Area TS groups have decided to CANCEL NEXT YEAR'S SUMMER

FEST. Looks like we all better start saving for the Winter Fest, which will be held the last weekend of March in ORLANDO, FL. I say start saving because I hear that the cheapest hotel rooms in the area at that time of year are \$90/night. But heck, it IS Orlando...city of fun, for the whole family. I'm pretty sure I'll be there!

Q_LINK Review

Program: Q_LINK
Manufacturer: Meta Media Productions
Program Author: Harvey Taylor
Cost: \$19.95 + \$2.00 shipping
Address: 726 West 17th, Vancouver,
B.C., CANADA, V5Z 1T9

For some time I have looked for a good terminal program for the QL that included XMODEM. I have tried one other program that had XMODEM but with unfavorable results. Q_LINK is not only GOOD and well thought-out, but it actually works!!

The features are:

- Menu or quick-key access to commands
- XMODEM or ASCII (with XON/XOFF) file transfers
- Built in EDITOR accessible from within comm
- Alterable SER device on-the-fly
- Text in buffer is MARKable for selective uses
- Configurable Modem commands
- Auto-dial and re-dial through modem commands
- 20 user-configurable MACRO commands
- 40 phone number storage
- Multitaskable
- NO COPY PROTECTION

The one major drawback of the QL is its serial ports. I shudder whenever I look at the schematic of that section! The task is handled by two LSI chips already burdened with other functions. The receive part of the serial section is handled by an 8749 uC, which also handled the keyboard scanning. In fact, there is only ONE RECEIVE PORT! This port is shared via multiplexing the handshaking signals

for the two ports. This has really caused programmers grief trying to write a good telecomm program....

Harvey Taylor's solution...

Q_LINK is an excellent solution to the QL's telecomm dilemma. Using the MODAPTER PLUS at 300 baud worked well, as expected. The MODAPTER PLUS at 1200, however, was a flop! I then wired up a cable, as described by Harvey in his very good manual, and 1200 baud then worked. I used this cable for the remainder of my observations in this review.

Following the manual I BACKED UP THE COPY, and then added my signons, BBS numbers, and modem commands for my Hayes compatible ADC modem, to the copy of Q_LINK. I dialed up a local BBS (MicroLink) at 1200 baud, and performed my 'normal' activities without loss of characters or garbage. So far, so good. Command access in this program is GREAT! While learning to 'get around' you can use the quick-key method that exists for most commands (i.e. <CNTRL> + <SHFT> + <S> sends a file via XMODEM). Both methods co-exist so you can still use MENUS in little used areas that you might forget a month from now.

XMODEM

Since this is the part of the program I'm most interested in, I spent a lot of time with it. While in the local BBS I downloaded a small file via XMODEM at 1200 baud. It worked beautifully! Next, I warmed up my trusty CPM+ based machine and hooked up the QL directly. On the CPM+ machine I use IMP (Improved Modem Program), which is one of the latest public domain XMODEM programs. I did a series of xfers at 300, 1200, 2400, and 9600 baud via XMODEM AND ASCII xfer. The results surprised me! ASCII xfers worked in both directions at all speeds with only an occasional dropping of characters at 9600. Adding a small time delay after LF on the host (CPM machine) cleared that up! XMODEM xfers worked in both

directions and at all speeds except 9600. It sure is nice xfering a file via XMODEM at 2400! The only problem I did notice was if the QL's serial buffer overflows you'll get incomplete messages from the host. This was mentioned in the manual and the only way out is... RESET.

EDITOR

The built-in editor is used to manipulate the text buffer in the program. Although it doesn't have ALL the features, it does the needed job. The only thing that confused me at first was the MARK function. The manual just stated what it did, but now how to use it. To use, simply position the cursor to the start of the block to be marked and execute <CNTRL> <S> (or go through the menus), then position the cursor to the end of the block to be marked and execute <CNTRL> <E> (or go through the menus). Now you can use any block oriented command such as PRINT or DELETE to manipulate the marked block. It would be nice to see a visual change in the MARKed block, such as a change in the text color, so that I can easily SEE the block that is marked, HARVEY?? Printing the buffer is straightforward although your printer must be set up to execute a CR when it receives a LF.

The manual is complete and well written and although the finish is not high quality, the PROGRAM IS! I would highly recommend this program to anyone who is serious about telecomm or inter-computer xfers. It is worth twice the \$19.95 that is charged (Harvey, you didn't read that!).

-Tim Stoddard

QL HINT- using QUILL

When using the QL Word Processor ("QUILL"), use the IBM print protocol if your printer supports it, instead of the Epson protocol. This allows a more extensive set of printer commands to be implemented in Quill's substitution table, which limits you to 10 substitutions (one of which is taken by the "£" (pound

sterling symbol) which is not standardized in ASCII). If anybody knows the hack for enlarging Quill's substitute table, I'd be grateful for the information. I altered the BASIC configuration program (INSTALL_BAS), to allow the substitute table to filled for more than 10 characters, and Quill accepted the results, but ignored those characters after the tenth.

-Stoney McMurray

OLIGER DISK SYSTEM REVIEW

Product: JLO Disk Interface (2068)
Price: \$189.95 assembled and tested with cable, \$160.85 as kit with all parts, cable.
Manufacturer: The John Oliger Co.
Address: 11601 Whidbey Drive, Cumberland, IN 46229.

I recently purchased the Oliger disk system for my TS 2068 and I love it. Although it is a little expensive, it is well worth the money. It works with a wide variety of disk drives (IBM PC compatible), is easy to use, and is very fast. Single or double sided drives with between 10 and 250 tracks (usually 40 or 80), and a head step rate of 6ms (usually), 12ms, 20ms, or 30 ms may be used. I personally use a Tandon 80 track, quad density double sided drive with no problems.

Accessing the disk is simple. LOAD /"name" will load from disk as LOAD "name" will load from cassette. The / is used for most disk commands. Filing types are also used like cassette (CODE, SCREEN\$, DATA, LINE). Ex: SAVE /"name" SCREEN\$. In addition to these types, there are also two more- VAL and ABS. VAL is used to save/load variables without the program, i.e.- SAVE /"name" VAL. ABS is used to save/load the entire memory of the computer (about 48K) so you can save those many part commercial programs in one shot. You can also VERIFY files or CATalogue a disk, but there is no MERGE.

The Oliger system has many features.

If you try to save a program with the same name as a program that is already on the disk, you'll hear a warning beep and see a warning message. At this time, you have 5 seconds to abort (BREAK) or the previous program will be overwritten. To change the name of a file use RESTORE /"oldname" type TO "newname". There is also a way to copy a program from disk to disk or to copy the entire disk. For this feature use MOVE /"name" type TO drive #. To do this, however, you must have 2 disk drives.

The NMI save button also has many functions. You can use it to save an entire program to disk at the touch of a button, or to SAVE a screen to disk, to dump a screen to the selected printer, to pause a program, or to break out of a program that you can't normally get out of. This button is very useful for transferring commercial programs to disk.

As far as speed, the Oliger system is very fast. A short program loads in less than a second, and a very long program loads in about 4 seconds. Saving takes one or two seconds longer. Formatting, however, may take a while. It takes about 1 minute and 40 seconds to format my high capacity drive (800K). Of course, drives with less capacity will be quicker.

The Oliger ROM has a printer driver built into it which supports the Oliger and Aerco printer interfaces. LPRINT, LLIST, and COPY are supported as well as a high resolution copy for the Gorilla Banana, Gemini, and Olivetti.

All-in-all, the Oliger system is excellent and worth looking into if you are considering using disk drives. The one thing that really bothers me is the fact that there is no ERASE command, although there are ways to get around this for the most part.

NOTE: B.G. Micro often sells 5.25" Tandon full size, 80 track, 96 TPI, double sided, quad density 6ms disk drives for \$44.95 + \$3 s/h. These

drives are compatible with the Oliger system and mine formats to 785K per disk.

B.G. Micro, P.O. Box 280298, Dallas, Texas 75228 Tel: 214-271-5546
Mastercard, Visa, American Express.

Note: RMG Enterprises is selling a single full height disk drive case with power supply (Item RMG#482) for \$49.95 + \$4 s/h. Since the above disk is uncased without a power supply, this item should also be purchased.
RMG Ent., 1419 1/2 7th St., Oregon City, OR 97045

-Keith Skapinski

NO MORE T.O.P.S

The Timex Of Portugal Systems (TOPS) newsletter is no more. This newsletter was created by Dave Franson out in Wisconsin as support for owners of the Zebra Disk System (Portuguese Disk). Unfortunately, it seems the first issue was the last.

The reasons for the newsletter discontinuation were given in a letter by Dave which should have been sent to all subscribers to TOPS. Subscribers should have also received their original check, too. It seems that Dave's help for the newsletter suddenly became non-existent, and as Dave said, things were piled up too high for him to do alone and the job turned into a 'major pain in the butt'.

Dave thanks all of you who supported him and wishes the best to all. His idea was a good one and I'm sure it will be missed by all Zebra drive owners. Perhaps someone else can come along and save TOPS? Dave says he will pass along all the information (i.e. - mailing list, articles) he has received to anyone who is willing to produce the newsletter.

NEW NEWSLETTER?

It seems that as TOPS folds, a new newsletter is coming up on the horizon. To be called TS-2068 SAFE DISK UPDATE, it is touted as a

newsletter for all 2068 owners. So why the 'SAFE DISK' part thrown into the title? It seems the newsletter will have special sections devoted to the John Oliger Disk System, which uses a DOS called SAFE, hence the 'SAFE DISK'. One section of the newsletter will be written by Mr. Oliger himself, and will cover questions and answers by JLO Disk System owners.

The newsletter ad I received makes the newsletter seem to be interesting. The producer, Bill Jones, states that he knows it will be expensive and time consuming, but he plans to stick to it. For more info. write:

TS-2068 Safe Disk Update
1317 Stratford Avenue
Panama City, FL 32404

Annual subscription is \$12, for four issues. This may sound expensive, but

the first issue is stated as having 'already 32 pages, 2 major programs, a dozen utilities- articles about disk drives, programming tips, and more'. Why not give it a try?

A LOSS

We note, with sadness, the passing of member Raeburn Clough, in August. Rae had been a LIST member for several years and contributed to the library and meetings. He helped generate the stimulation for a number of our articles in LISTing. He had recently retired and lived in Levittown. He did his undergraduate work at Lehigh (as did Paul and Nazir).

We will miss Rae and his enthusiasm for learning new ways of doing things.

POT POURRI

Here is a collection of information on items of interest to many Sinclair enthusiasts, and others:

1. The Spectrum game 'Gauntlet' cannot be copied with Interface One. Audio copying is simple, however. The game loads in three parts initially and

then requires new loads (for new areas of the maze). It uses interrupts.

2. I use Sony HF 60 tapes for all my TS work. I find these have the best mechanical and magnetic properties. In fact, HF 60's with holes drilled in them make good ADAM high speed data cartridges. Still, I do not make my own anymore, since prerecorded ADAM cassettes are on sale by American Design Components for \$20 for 13.

3. The IBM PC Jr. printer is a good buy at \$29 from a number of sources (see Computer Shopper). I use B.G. Micro. Watch out for Computer Direct's cable price. This printer uses 8" thermal paper and is RS232 compatible, with the cable.

4. The Star NP-10 from Lyco is an excellent printer for \$129. It does an outstanding NLQ as well as high speed draft mode. Lyco is at

5. MEI Micro Center sells 5.25" diskettes for 25 cents each in lots of 200. The disks are good quality BUT, always format them twice. I have found about 3-4 bad disks (i.e.- disks with some bad sectors) per batch. This is not really a problem once you have formatted the disks, as most disk systems will avoid bad sectors. Some programs, however, (like Starflight on the IBM PC) write directly to the whole disk and bad sectors will simply trash your data [I don't think TS users have to worry about this- ed.]. For 25 cents a disk, I can put up with a few extras steps every now and then.

5. American Design Components is not the only seller of the PC 8300- also check out LOLIR- 1-214-234-8032. Their price is \$24.95.

- Paul Donnely

 * USER DEFINED GRAPHICS MADE EASY *

 BY CEDRIC R. BASTIAANS

If you're like me you have many more books on the TS2068 than just the User Manual that came with your computer. And maybe you have read everything on User Defined Graphics in these books. Maybe even given it a try but gave up because it was just too much trouble? All those binary numbers to be punched in! Error prone, what?

Well, weep no more, friends. The listing on the right is a program that was inspired by publications of the 2 authors shown in line 1. I combined the good things in their programs, added instructions and a few lines which make the new program run better and be of more help.

I submitted a simpler version to LIST, on tape, in the form of a contribution to a library tape. It was never included in any of the finalized library tapes and I have no idea what happened to my contribution! But here then, is the complete listing.

Key it in and RUN. You will be greeted by a brief explanation; follow the prompt. A square is drawn on screen and as you work with it you will find that it is an enlarged 8x8 matrix for the creation of a PIXEL MAP. Try the number keys 1 through 8 and notice how easy it is to lay down a black (ink) square or remove it again. Notice that when you have moved the arrow down, additional text appears which gives you instructions how to proceed when you have completed your pixel map. Ignore it for now and make the map shown in FIG. 1.



129
 06
 36
 24
 24
 36
 06
 129

UDG HAS BEEN STORED AS GRAPHIC A
 FIGURE 1

Then press ENTER and watch the computer list all the bit information necessary to record it in the computer, in decimal numbers and not in binary! When prompted for a character to carry this UDG, key in the character "A". You can choose any character between A - U (A and U included).

The computer will get back to you with the

```

1 REM *** UDGMAKER ***
  by CEDRIC R. BASTIAANS, inspired
  by JOHN WENTWORTH (SUN VOL.2 #3)
  and BILL POWERS (CATS NEWSLETTER
  MAY 85)
10 PRINT AT 2,1;"THIS PROGRAM
  PRESENTS AN EASY";AT 3,1;"WAY
  TO MAKE USER DEFINED";AT 4,8;"G
  RAPHICS (UDG's)"
12 PRINT AT 6,0;"THE UDG's WILL
  L NOT BE LOST WITH""NEW"";""CL
  EAR"";""SAVE"" OR ""LOAD""ONLY
  ""RAND USR 0"";""RESETTING OR TU
  RNING OFF THE COMPUTER WILL!"
15 PRINT AT 11,3;"PRESS ANY KE
  Y TO CONTINUE";PAUSE 0:CLS
20 PLOT 95,55: DRAW 65,0: DRAW
  0,65: DRAW -65,0: DRAW 0,-65
30 POKE 23658,8: DIM A$(8,8)
LET R=1: FOR L=0 TO 7: POKE USR
  "A"+L,255: NEXT L
100 PRINT AT R+6,10;" "
105 PRINT AT 0,1;"USE KEYS 1 TH
  ROUGH 8 TO DARKEN THE APPROPRIAT
  E SQUARE. AGAIN TO CANCEL YOUR CH
  OICE."
107 PRINT AT 4,0;"MOVE THE ARRO
  W WITH KEYS A AND Z"
110 PAUSE 0: LET I$=INKEY$
120 IF I$>="1" AND I$<="8" THEN
  LET A$(R,VAL I$)=(" " AND A$(R,
  VAL I$)="█")+("█" AND A$(R,VAL I
  $)=" ");PRINT AT R+6,12,A$(R)
GO TO 110
130 PRINT AT R+6,10;" " : LET R=
  R+(1 AND I$="Z" AND R<8)-(1 AND
  I$="A" AND R>1)
135 PRINT AT 16,0;"IF YOU ARE S
  ATISFIED WITH YOUR DESIGN, PRES
  S <ENTER> AND THE COMPUTER WILL
  L PRINT THE DECIMAL NUMBERS FOR
  YOU TO RECORD FOR FUTURE USE."
140 IF CODE I$<>13 THEN GO TO 1
  00
200 DATA 128,64,32,16,8,4,2,1
210 FOR J=1 TO 8: LET L=0: REST
  ORE 200: FOR R=1 TO 8: READ X: L
  ET L=L+(X AND A$(J,R)="█"): NEXT
  R: PRINT AT J+6,23,L: NEXT J
220 PRINT AT 16,0;"

```

```

222 PRINT AT 16,0;"WHAT KEY DO
  YOU WANT TO CARRY THIS NEW CHA
  RACTER? (A-U ONLY!)"
225 INPUT B$
230 FOR J=1 TO 8: LET L=0: REST
  ORE 200: FOR R=1 TO 8: READ X: L
  ET L=L+(X AND A$(J,R)="█"): NEXT
  R: POKE USR B$+J-1: NEXT J
250 FLASH 1: BEEP .5,12: PRINT
  AT 19,0;"UDG HAS BEEN STORED AS
  GRAPHIC ";B$
300 PRINT #1,AT 1,0;"MODIFY STOP
  Y. ANOTHER SUIT?" : PAUSE 0: FLASH
  0: IF INKEY$="H" THEN PRINT #1,
  AT 1,0;"
GO TO 100
303 IF INKEY$="C" THEN COPY
305 IF INKEY$="Q" THEN STOP
310 FLASH 0: CLS: GO TO 10
320 SAVE "UDGMAKER" LINE 1

```

indication that the UDG has been stored and you will be asked to either modify, copy, quit or do another UDG. I suggest you press Q and try your UDG in actual print by keying in SHIFT 9 (that's the GRAPHICS mode) and then "A" (or if you chose a different character, key in that character). If you keep the key down you'll see that this UDG could make a simple but nice border.

NOTE: If, after trial printing your UDG, you need to modify it, key in GO TO 100 to get the original pixel map back. After (C)opy, it will be erased and return you to the start of the program.

Now, if you need this UDG in your program, use the following program lines (we'll assume that you have chosen the character "A" for this UDG storage):

```
1 DATA 129,66,36,24,24,36,66,129
2 RESTORE 1:FOR N=0 TO 7: READ D: POKE USR "A"
+ N, D: NEXT N
```

Each time you use the graphics "A" in your program, the large X will be printed.

UDG's may be combined to make much larger graphics. Try the following:

Key in the pixel map shown in FIG 2; store "D"
 Next, key in the map shown in FIG 3; store "O"
 Then, key in the map shown in FIG 4; store "K"
 Next, key in the map shown in FIG 5; store "S"
 Next, key in the map shown in FIG 6; store "H"
 Furthermore, the map shown in FIG 7; store "U"
 Also, key in the map shown in FIG 8; store "N"
 Finally, do the map shown in FIG 9; store "T"

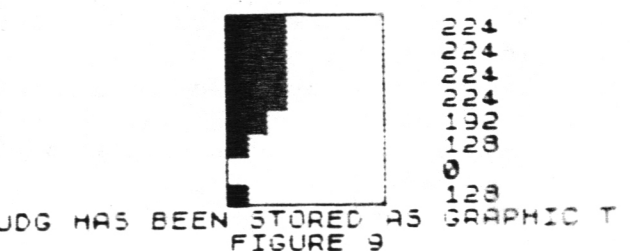
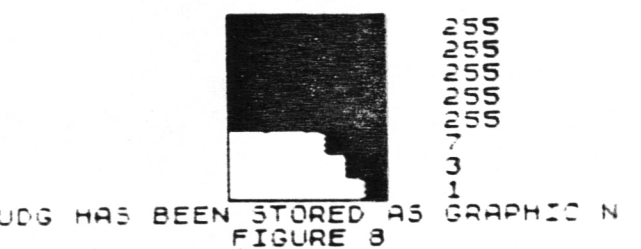
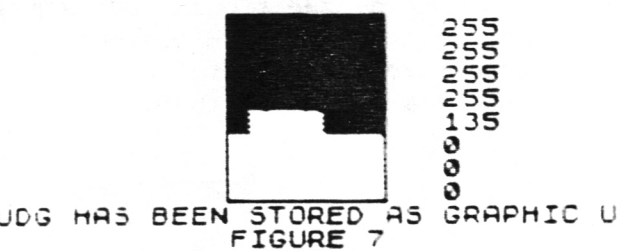
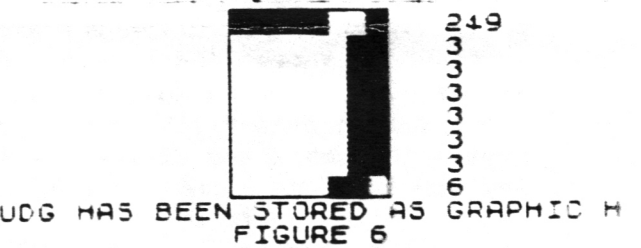
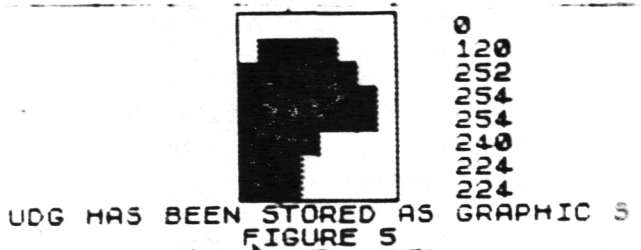
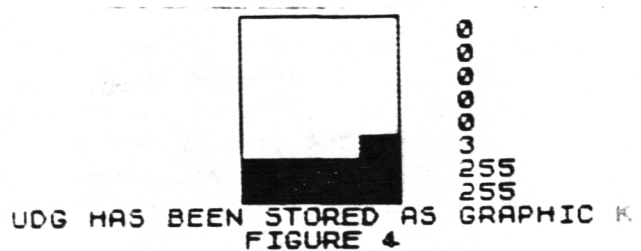
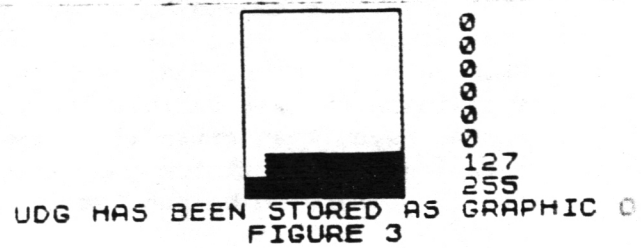
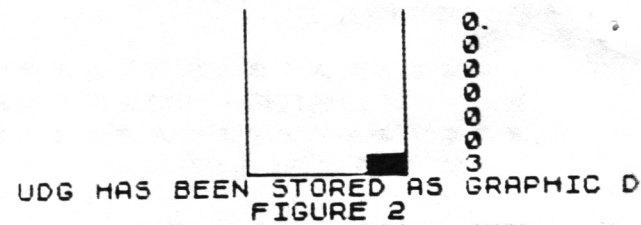
When you have finished this, CLS and enter the following in the direct mode:

```
PRINT AT 7,10;"D" (ENTER)
PRINT AT 7,11;"O" (ENTER)
PRINT AT 7,12;"K" (ENTER) NOTE: ALL THESE
PRINT AT 7,13;"S" (ENTER) STRINGS ARE
PRINT AT 8,10;"H" (ENTER) GRAPHIC
PRINT AT 8,11;"U" (ENTER) CHARACTERS'
PRINT AT 8,12;"N" (ENTER)
PRINT AT 8,13;"T" (ENTER)
```

When you did everything right you will see on your screen the realistic figure of a dachshund! Like this:



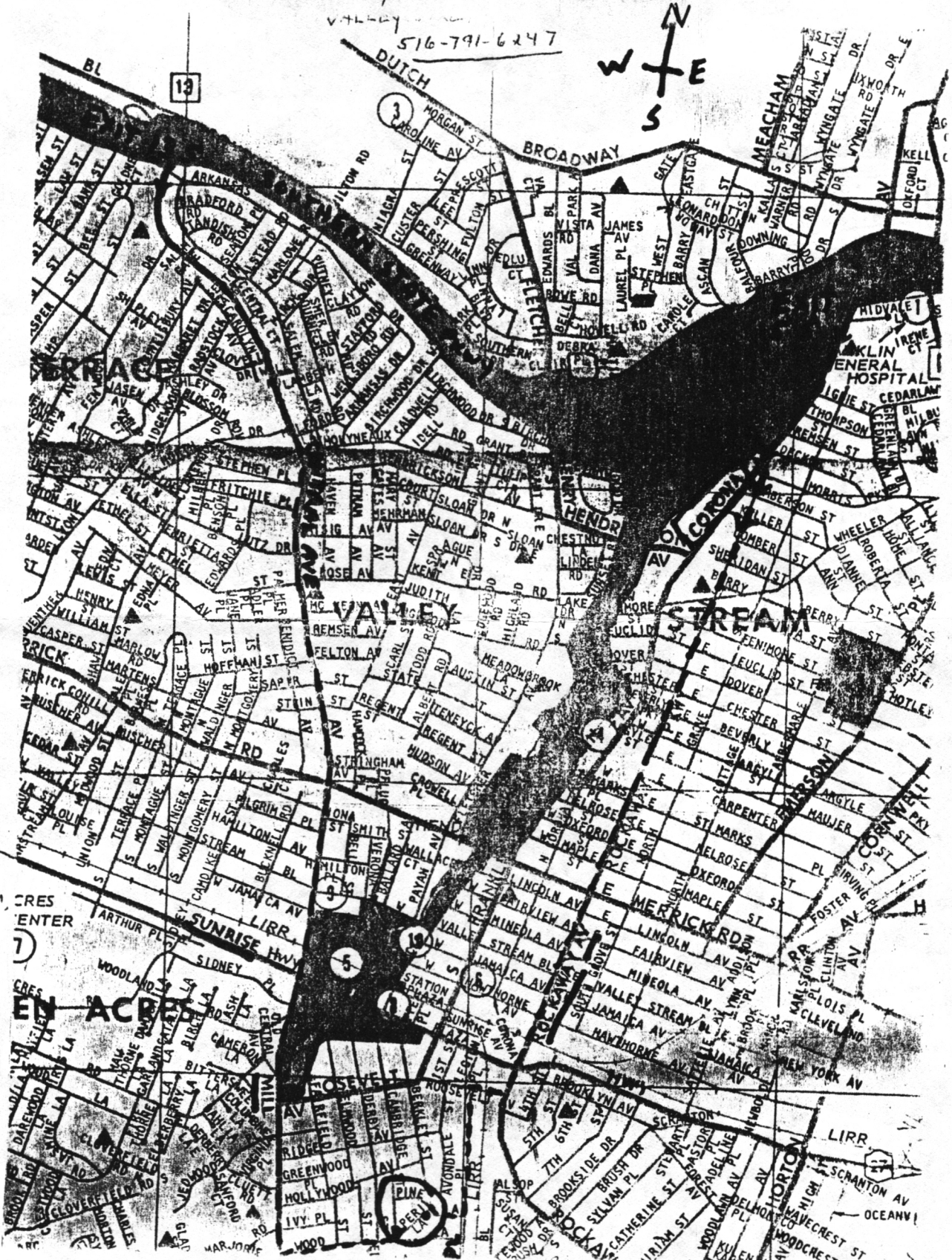
Have fun with this program!



THEY WANTED A MAP! ^{You} GOT IT!

Harvey Rait

516-791-6247

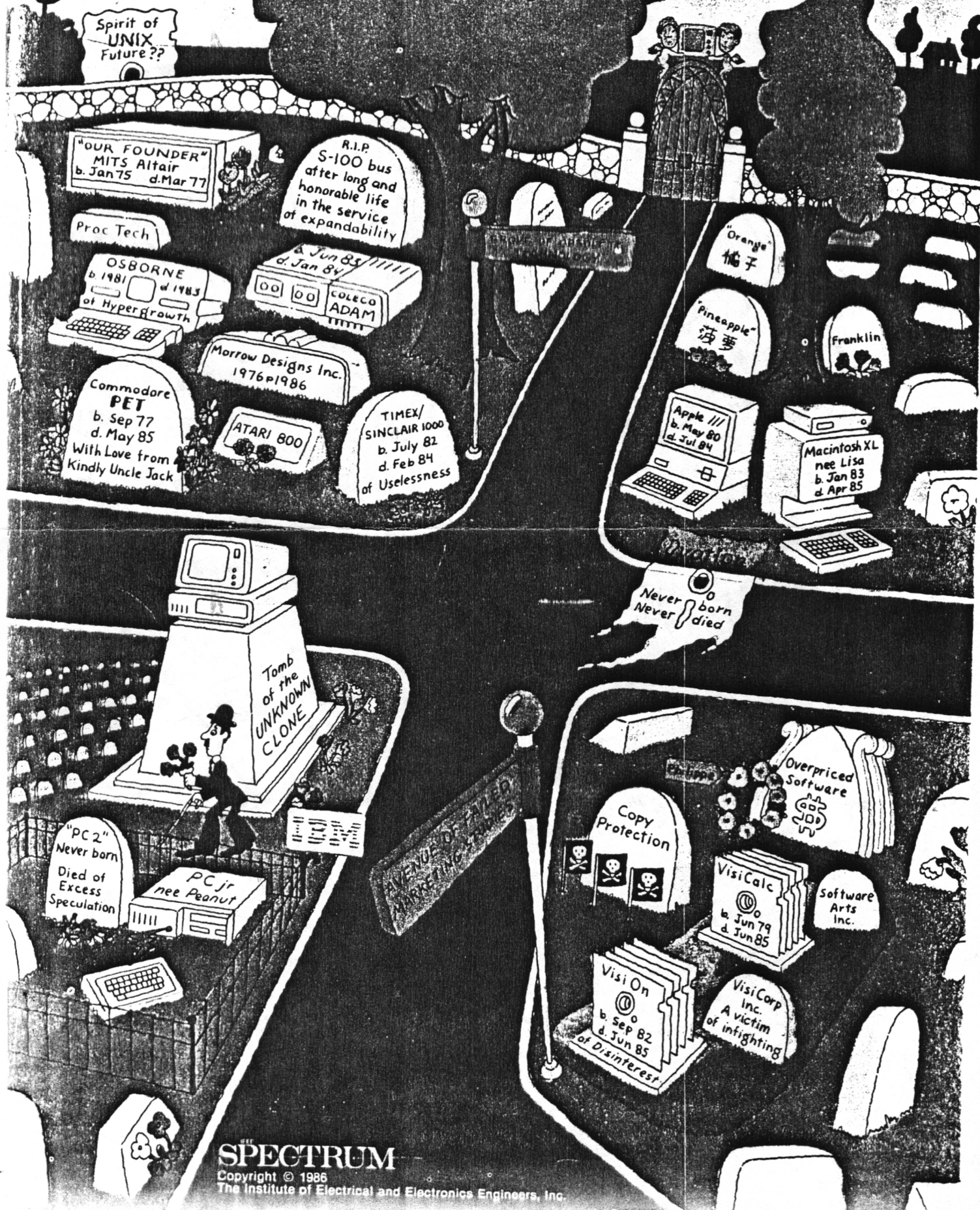


TO BELT
FARROWAY
for Brooklyn
S.I. or
N.S.

NEXT LIST MEETING: 2:00 P.M., SUNDAY OCT. 11 at Harvey Rait's... 5 Per: Lane, Valley Stream, L.I.

Next NYTSC - (NY LIST) - Oct. 19 (3rd Monday in Oct.) Miss Kim's Deli/Boutrigue.
7pm, Park Ave

In memoriam: the PC graveyard



SPECTRUM

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